

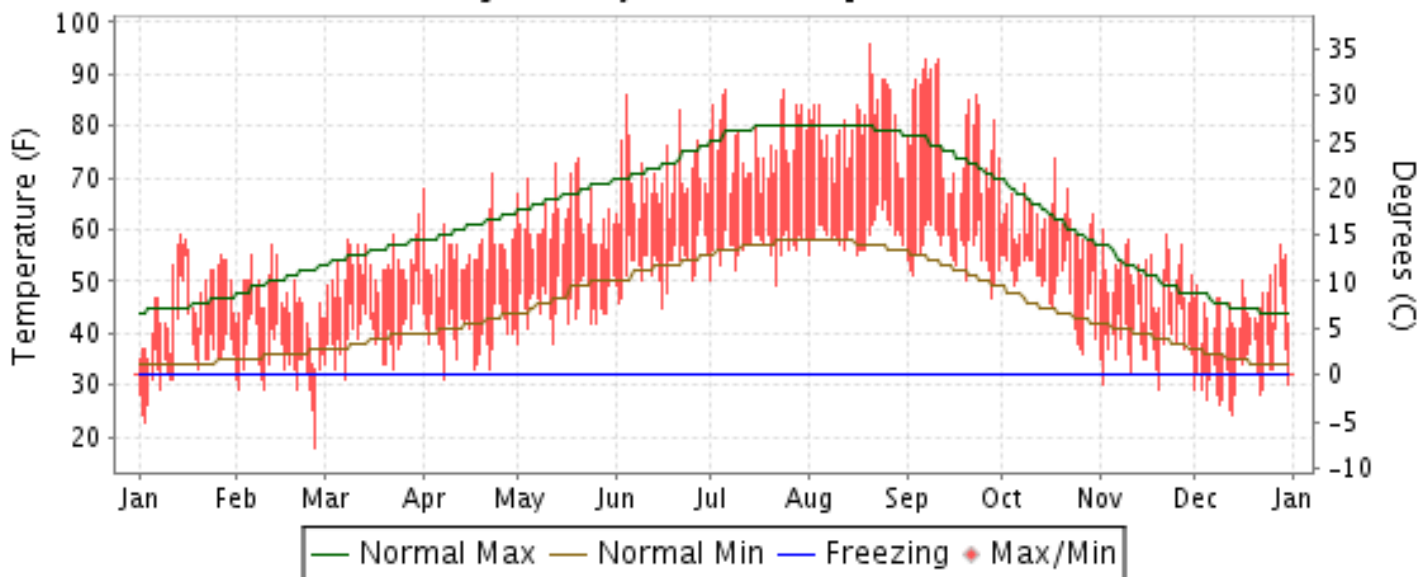


2011 LOCAL CLIMATOLOGICAL DATA ANNUAL SUMMARY WITH COMPARATIVE DATA

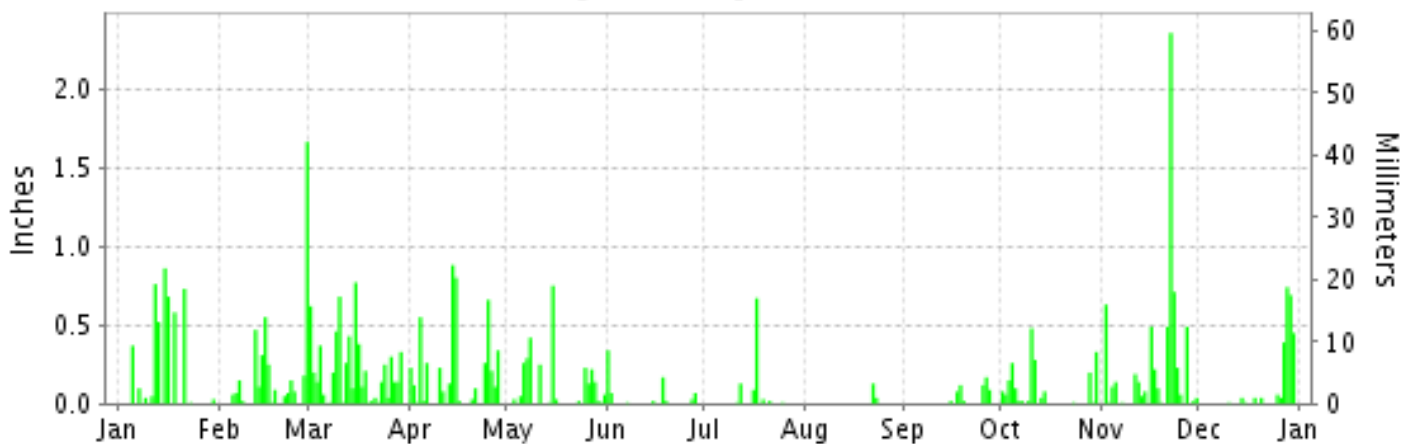
ISSN 0198-4195

PORTLAND, OREGON (KPDX)

Daily Max/Min Temperature



Daily Precipitation



Daily Station Pressure



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NATIONAL
OCEANIC AND
ATMOSPHERIC ADMINISTRATION

NATIONAL
ENVIRONMENTAL SATELLITE, DATA
AND INFORMATION SERVICE

NATIONAL
CLIMATIC DATA CENTER
ASHEVILLE, NORTH CAROLINA

Thomas R. Karl
DIRECTOR
NATIONAL CLIMATIC DATA CENTER

METEOROLOGICAL DATA FOR 2011

PORTLAND (KPDX)

LATITUDE: 45° 35'N LONGITUDE: -122° 36'W ELEVATION (FT): GRND: 19 BARO: 223 TIME ZONE: PACIFIC (UTC -8) WBAN: 24229

ELEMENT		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR	
TEMPERATURE °F	MEAN DAILY MAXIMUM	47.3	46.5	52.5	56.0	62.5	70.1	76.9	80.5	79.0	61.8	51.3	45.3	60.8	
	HIGHEST DAILY MAXIMUM	59	57	63	71	74	86	87	96	93	74	60	57	96	
	DATE OF OCCURRENCE	14	12	31	23	20	04	24+	20	11+	18	02	28	AUG 20	
	MEAN DAILY MINIMUM	36.1	34.1	39.7	39.8	45.6	53.2	56.5	59.2	55.8	49.2	38.5	32.8	45.0	
	LOWEST DAILY MINIMUM	23	18	31	31	38	45	49	55	47	36	29	24	18	
	DATE OF OCCURRENCE	03	26	07	08	12+	16	22	16+	28	27	20	13	FEB 26	
	AVERAGE DRY BULB	41.7	40.3	46.1	47.9	54.1	61.7	66.7	69.9	67.4	55.5	44.9	39.1	52.9	
	MEAN WET BULB	39.9	37.3	42.8	43.1	48.3	54.4	58.0	59.7	58.4	51.4	42.5	37.0	47.7	
	MEAN DEW POINT	36.8	32.8	39.7	37.6	42.5	48.6	52.0	53.3	51.7	48.3	39.6	34.2	43.1	
	NUMBER OF DAYS WITH:														
	MAXIMUM >= 90°	0	0	0	0	0	0	0	0	2	5	0	0	0	7
	MAXIMUM <= 32°	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	MINIMUM <= 32°	9	9	1	1	0	0	0	0	0	0	3	16	39	
	MINIMUM <= 0°	0	0	0	0	0	0	0	0	0	0	0	0	0	
H/C	HEATING DEGREE DAYS	714	683	577	505	331	110	13	2	36	286	596	797	4650	
	COOLING DEGREE DAYS	0	0	0	0	0	16	72	160	114	0	0	0	362	
RH	MEAN (PERCENT)	83	77	81	71	68	66	63	61	63	79	82	84	73	
	HOUR 04 LST	88	83	88	86	83	83	81	78	80	87	88	89	85	
	HOUR 10 LST	82	74	77	64	63	58	59	56	56	74	80	84	69	
	HOUR 16 LST	78	70	70	56	55	51	45	40	42	71	78	79	61	
	HOUR 22 LST	84	81	86	76	73	71	69	69	71	84	86	86	78	
S	PERCENT POSSIBLE SUNSHINE														
W/O	NUMBER OF DAYS WITH:														
	HEAVY FOG(VISBY <= 1/4 MI)	9	2	2	0	0	0	0	0	0	4	7	8	32	
	THUNDERSTORMS	0	0	1	1	1	1	1	0	0	0	0	0	5	
CLOUDINESS	SUNRISE-SUNSET: (OKTAS)														
	CEILOMETER (<= 12,000 FT.)														
	SATELLITE (> 12,000 FT.)														
	MIDNIGHT-MIDNIGHT: (OKTAS)														
	CEILOMETER (<= 12,000 FT.)														
SATELLITE (> 12,000 FT.)															
NUMBER OF DAYS WITH:															
CLEAR															
PARTLY CLOUDY															
CLOUDY															
PR	MEAN STATION PRESS. (IN.)	30.11	29.99	29.80	29.97	29.91	29.90	29.90	29.89	29.90	29.97	29.93	30.19	29.96	
	MEAN SEA-LEVEL PRESS. (IN.)	30.22	30.11	29.92	30.09	30.03	30.02	30.00	30.00	30.01	30.08	30.05	30.32	30.07	
WINDS	RESULTANT SPEED (MPH)	3.9	3.3	5.8	2.9	2.0	2.7	3.9	4.7	0.6	1.6	3.2	2.0	1.1	
	RES. DIR. (TENS OF DEGS.)	14	15	15	23	26	30	31	31	32	19	17	15	21	
	MEAN SPEED (MPH)	6.5	7.3	9.1	6.8	5.4	5.7	5.9	5.8	5.3	5.1	6.2	4.7	6.2	
	PREVAIL.DIR.(TENS OF DEGS.)	10	11	11	19	32	32	32	33	31	32	12	11	33	
	MAXIMUM 2-MINUTE WIND														
	SPEED (MPH)	29	33	40	33	26	22	23	17	26	22	30	28	40	
	DIR. (TENS OF DEGS.)	10	19	24	23	21	08	32	31	08	20	21	22	24	
	DATE OF OCCURRENCE	11	12	13	13	27	04	05	30	03	28	16	28	MAR 13	
	MAXIMUM 3-SECOND WIND:														
	SPEED (MPH)	35	46	55	39	35	26	32	24	35	30	40	36	55	
DIR. (TENS OF DEGS.)	09	19	25	23	34	09	22	22	07	23	20	22	25		
DATE OF OCCURRENCE	11	12	13	13	28	04	28	27	28	11	16	28	MAR 13		
PRECIPITATION	WATER EQUIVALENT:														
	TOTAL (IN.)	4.73	4.28	6.43	5.04	2.92	0.73	0.96	0.17	0.62	2.14	6.57	2.51	37.10	
	GREATEST 24-HOUR (IN.)	1.46	1.67	1.07	1.07	0.76	0.34	0.67	0.17	0.26	0.56	2.40	1.09	2.40	
	DATE OF OCCURRENCE	15-16	27-28	09-10	14-15	14-15	01	17	22-23	26-27	10-11	22-23	29-30	NOV 22-23	
	NUMBER OF DAYS WITH:														
	PRECIPITATION 0.01	12	17	28	19	17	8	7	2	7	16	21	11	165	
PRECIPITATION 0.10	8	9	20	14	9	2	2	1	3	7	13	4	92		
PRECIPITATION 1.00	0	1	0	0	0	0	0	0	0	0	1	0	2		
SNOWFALL	SNOW,ICE PELLETS,HAIL														
	TOTAL (IN.)														
	GREATEST 24-HOUR (IN.)														
	DATE OF OCCURRENCE														
	NUMBER OF DAYS WITH:														
SNOWFALL >= 1.0															

NORMALS, MEANS, AND EXTREMES PORTLAND (KPDJ)

LATITUDE:
45° 35'N

LONGITUDE:
-122° 36'W

ELEVATION (FT):
GRND: 19 BARO: 223

TIME ZONE:
PACIFIC (UTC -8)

WBAN: 24229

	ELEMENT	POR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
TEMPERATURE °F	NORMAL DAILY MAXIMUM	30	45.6	50.3	55.7	60.5	66.7	72.7	79.3	79.7	74.6	63.3	51.8	45.4	62.1
	MEAN DAILY MAXIMUM	81	45.1	50.3	55.6	61.2	67.6	73.2	79.8	79.8	74.6	63.8	52.5	46.2	62.5
	HIGHEST DAILY MAXIMUM	71	66	71	80	90	100	102	107	107	105	92	73	65	107
	YEAR OF OCCURRENCE		2005	1988	1947	1998	1983	2006	1965	1981	1988	1987	1975	1993	AUG 1981
	MEAN OF EXTREME MAXS.	81	57.1	60.6	68.8	77.5	85.8	90.7	95.9	95.0	90.3	78.3	63.5	57.8	76.8
	NORMAL DAILY MINIMUM	30	34.2	35.9	38.6	41.9	47.5	52.6	56.9	57.3	52.5	45.2	39.8	35.0	44.8
	MEAN DAILY MINIMUM	81	34.3	36.3	39.1	42.5	47.9	53.2	57.0	57.1	52.6	46.0	39.9	35.9	45.2
	LOWEST DAILY MINIMUM	71	-2	-3	19	29	29	39	43	44	34	26	13	6	-3
	YEAR OF OCCURRENCE		1950	1950	1989	1955	1954	1966	1955	1980	1965	1971	1985	1964	FEB 1950
	MEAN OF EXTREME MINS.	81	21.9	24.7	29.7	33.8	38.6	45.8	49.9	49.6	43.1	35.0	28.5	24.0	35.4
	NORMAL DRY BULB	30	39.9	43.1	47.2	51.2	57.1	62.7	68.1	68.5	63.6	54.3	45.8	40.2	53.5
	MEAN DRY BULB	81	39.7	43.3	47.4	51.8	57.7	63.2	68.4	68.5	63.6	54.9	46.2	41.1	53.8
	MEAN WET BULB	28	38.2	39.1	42.8	45.9	50.6	54.7	58.6	59.0	55.8	49.8	43.3	37.4	47.9
	MEAN DEW POINT	28	36.3	36.6	40.3	43.4	48.0	51.8	55.4	55.7	52.8	47.7	41.6	35.6	45.4
	NORMAL NO. DAYS WITH: MAXIMUM >= 90	30	0.0	0.0	0.0	*	0.4	1.1	4.5	4.6	2.1	0.1	0.0	0.0	12.8
	MAXIMUM <= 32	30	1.3	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	1.2	3.1
MINIMUM <= 32	30	11.6	7.2	3.0	0.7	0.0	0.0	0.0	0.0	0.0	0.4	4.4	9.8	37.1	
MINIMUM <= 0	30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
H/C	NORMAL HEATING DEG. DAYS	30	765	605	536	400	243	96	21	21	78	319	560	756	4400
	NORMAL COOLING DEG. DAYS	30	0	0	0	1	14	43	133	145	52	2	0	0	390
RH	NORMAL (PERCENT)	30	81	78	75	73	70	67	64	65	69	78	82	83	74
	HOURLY 04 LST	30	85	85	86	86	85	83	81	82	86	90	88	86	85
	HOURLY 10 LST	30	82	80	76	70	67	64	62	64	67	77	83	83	73
	HOURLY 16 LST	30	74	66	60	56	53	50	45	43	47	59	74	77	59
	HOURLY 22 LST	30	83	80	78	75	73	70	67	68	73	82	84	84	76
S	PERCENT POSSIBLE SUNSHINE	46	28	38	48	52	57	56	69	66	62	44	28	23	48
W/O	MEAN NO. DAYS WITH: HEAVY FOG(VISBY <= 1/4 MI)	48	4.8	3.8	2.1	0.9	0.2	0.1	0.0	0.1	1.5	5.9	5.7	4.3	29.4
	THUNDERSTORMS	64	0.0	0.1	0.5	1.0	1.3	0.8	0.8	0.8	0.7	0.4	0.3	0.0	6.7
CLOUDINESS	MEAN: SUNRISE-SUNSET (OKTAS)	47	6.7	6.6	6.4	6.2	5.8	5.4	3.8	4.0	4.3	5.6	6.4	6.8	5.7
	MIDNIGHT-MIDNIGHT (OKTAS)	32	6.3	6.0	5.7	5.7	5.3	4.9	3.6	3.6	3.9	5.0	6.3	6.4	5.2
	MEAN NO. DAYS WITH: CLEAR	47	2.9	2.9	3.3	3.5	5.0	6.2	12.6	11.4	10.3	5.4	2.8	2.1	68.4
	PARTLY CLOUDY	47	3.6	3.8	4.9	5.8	7.2	7.7	8.5	9.6	8.1	7.6	4.3	3.3	74.4
	CLOUDY	47	24.4	21.5	22.8	20.7	18.9	16.1	9.9	10.1	11.6	18.0	22.9	25.5	222.4
PR	MEAN STATION PRESSURE(IN)	28	30.03	30.00	29.98	29.99	29.97	29.97	29.97	29.95	29.95	30.01	30.01	30.04	29.99
	MEAN SEA-LEVEL PRES. (IN)	28	30.10	30.07	30.05	30.06	30.04	30.04	30.04	30.02	30.02	30.08	30.08	30.11	30.06
WINDS	MEAN SPEED (MPH)	28	9.4	8.7	7.7	7.1	6.8	7.0	7.3	6.9	6.2	6.3	8.0	9.3	7.6
	PREVAIL.DIR.(TENS OF DEGS)	41	12	12	12	33	33	33	33	33	33	12	12	12	33
	MAXIMUM 2-MINUTE: SPEED (MPH)	16	43	43	43	39	33	39	24	26	31	43	43	43	43
	DIR. (TENS OF DEGS)		20	08	21	26	24	19	32	32	07	08	20	22	22
	YEAR OF OCCURRENCE		2000	2006	1999	2010	2000	2009	2007	1999	2000	2002	1998	2006	DEC 2006
	MAXIMUM 3-SECOND SPEED (MPH)	16	59	52	55	47	45	49	36	33	44	49	53	53	59
	DIR. (TENS OF DEGS)		19	10	25	26	24	19	28	17	31	09	19	22	19
YEAR OF OCCURRENCE		2000	2006	2011	2010	2010	2009	2007	1997	2004	2002	2006	2006	JAN 2000	
PRECIPITATION	NORMAL (IN)	30	5.07	4.18	3.71	2.64	2.38	1.59	0.72	0.93	1.65	2.88	5.61	5.71	37.07
	MAXIMUM MONTHLY (IN)	71	12.83	10.03	7.52	5.26	5.55	4.27	2.68	4.53	4.30	8.41	11.92	13.35	13.35
	YEAR OF OCCURRENCE		1953	1996	1957	1993	1998	2010	1983	1968	1986	1994	2006	1996	DEC 1996
	MINIMUM MONTHLY (IN)	71	0.06	0.72	1.10	0.53	0.10	0.03	0.00	T	T	0.19	0.77	1.38	0.00
	YEAR OF OCCURRENCE		1985	1993	1965	1956	1992	1951	1967	1970	1993	1988	1976	1976	JUL 1967
	MAXIMUM IN 24 HOURS (IN)	71	3.13	2.46	1.83	1.47	1.47	1.82	1.09	1.54	2.38	4.44	4.10	2.59	4.44
	YEAR OF OCCURRENCE		2009	1994	1943	1962	1968	1958	1978	1977	1982	1994	1996	1977	OCT 1994
	NORMAL NO. DAYS WITH: PRECIPITATION >= 0.01	30	17.2	15.8	17.2	15.3	12.8	8.8	4.4	4.8	7.5	11.4	18.9	18.3	152.4
PRECIPITATION >= 1.00	30	0.8	0.5	0.1	0.2	0.1	0.1	*	0.1	0.2	0.3	0.9	1.1	4.4	
SNOWFALL	NORMAL (IN)	30	1.6	1.6	0.1	0.*	0.*	0.0	0.0	0.0	0.0	0.0	0.6	1.3	5.2
	MAXIMUM MONTHLY (IN)	55	41.4	13.2	12.9	T	0.6	T	0.0	T	T	0.2	8.2	15.7	41.4
	YEAR OF OCCURRENCE		1950	1949	1951	1995	1953	1995		1989	1949	1950	1955	1968	JAN 1950
	MAXIMUM IN 24 HOURS (IN)	55	10.6	6.4	7.7	T	0.5	T	0.0	T	T	0.2	7.4	8.0	10.6
	YEAR OF OCCURRENCE		1950	1993	1951	1995	1953	1995		1989	1949	1950	1977	1964	JAN 1950
	MAXIMUM SNOW DEPTH (IN)	48	15	14	5	0	0	0	0	0	0	0	5	11	15
	YEAR OF OCCURRENCE		1950	1950	1951								1977	1964	JAN 1950
NORMAL NO. DAYS WITH: SNOWFALL >= 1.0	30	0.4	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.6	1.7	

PRECIPITATION (inches) 2011 PORTLAND (KPDX)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1982	6.31	5.98	2.38	3.56	0.46	1.66	0.94	1.66	3.98	4.44	3.51	8.16	43.04
1983	6.23	7.78	6.80	1.87	1.30	1.95	2.68	2.29	0.39	1.95	8.65	5.30	47.19
1984	2.01	3.93	3.19	3.20	3.41	4.06	T	0.09	1.46	3.85	9.74	2.56	37.50
1985	0.06	1.79	3.08	1.07	1.52	2.34	0.55	0.48	2.76	2.75	3.89	2.19	22.48
1986	4.65	5.31	2.60	1.91	2.19	0.23	1.20	0.10	4.30	1.99	6.26	4.30	35.04
1987	6.93	2.45	4.91	1.94	1.63	0.14	1.03	0.35	0.30	0.27	1.96	8.00	29.91
1988	4.95	1.17	3.13	4.57	2.53	2.34	0.69	0.10	1.76	0.19	7.92	2.37	31.72
1989	3.30	2.84	6.73	2.08	2.87	0.78	0.91	1.07	1.48	1.73	3.18	3.08	30.05
1990	7.95	3.43	2.52	2.31	2.37	1.94	0.32	0.95	0.34	4.65	3.68	2.40	32.86
1991	2.56	3.65	4.64	4.05	3.34	2.31	0.07	0.70	0.02	1.51	6.36	4.34	33.55
1992	4.31	4.12	1.87	3.82	0.10	0.60	0.67	0.49	1.12	2.87	4.55	4.98	29.50
1993	3.06	0.72	4.39	5.26	4.36	1.69	2.41	0.37	T	1.59	1.50	5.01	30.36
1994	3.56	4.92	1.84	1.91	0.56	1.67	0.07	0.13	1.13	8.41	5.91	4.85	34.96
1995	5.56	3.19	3.82	3.49	1.65	2.62	1.23	0.81	1.31	3.15	11.15	5.35	43.33
1996	7.15	10.03	3.24	5.12	4.88	0.44	.73	.25	3.05	5.39	9.58	13.35	63.21
1997	7.32	1.63	7.14	3.73	3.63	2.83	0.52	1.58	1.98	6.40	4.02	3.03	43.81
1998	6.77	5.27	4.06	1.04	5.55	1.73	0.59	T	1.09	2.16	11.02	6.74	46.02
1999	6.63	8.73	4.03	1.56	1.97	1.73	0.51	0.75	0.10	2.44	6.81	3.62	38.88
2000	5.66	4.50	3.21	1.82	2.70	1.19	0.15	0.12	1.67	3.25	2.46	3.47	30.20
2001	1.47	1.29	3.11	2.85	0.91	1.79	0.95	0.74	0.70	3.12	6.89	6.62	30.44
2002	6.22	3.55	3.40	2.34	1.86	1.57	0.19	0.04	1.54	0.63	1.91	8.00	31.25
2003	7.64	2.37	5.75	4.37	1.49	0.31	T	0.19	0.85	3.01	4.09	7.45	37.52
2004	4.86	3.95	1.53	1.01	1.78	1.12	0.04	2.68	1.03	3.36	2.38	3.91	27.65
2005	1.94	1.30	3.77	3.49	4.34	2.21	0.41	1.05	1.70	3.39	4.98	7.52	36.10
2006	10.92	2.15	2.96	2.46	3.00	0.92	0.47	0.10	0.86	1.39	11.92	5.85	43.00
2007	2.72	3.47	3.20	2.01	1.45	1.08	0.55	0.46	2.04	3.26	4.25	7.57	32.06
2008	4.71	2.19	3.71	2.08	2.02	1.00	0.29	1.23	0.48	1.74	4.15	3.52	27.12
2009	4.50	1.36	3.36	2.31	3.26	1.30	0.34	0.76	1.40	3.02	5.13	3.76	30.50
2010	4.94	2.76	3.58	2.92	4.68	4.27	0.59	0.23	3.36	3.87	6.63	8.35	46.18
2011	4.73	4.28	6.43	5.04	2.92	0.73	0.96	0.17	0.62	2.14	6.57	2.51	37.10
POR= 81 YRS	5.43	4.06	3.76	2.53	2.21	1.55	0.51	0.82	1.60	3.06	5.56	6.40	37.49

WBAN : 24229

AVERAGE TEMPERATURE (°F) 2011 PORTLAND (KPDX)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1982	39.7	43.6	48.5	49.0	57.6	66.0	67.5	68.6	63.2	54.9	44.4	41.7	53.7
1983	44.4	47.3	50.7	52.7	60.4	62.8	66.5	69.1	61.5	54.2	49.3	36.4	54.6
1984	42.2	45.9	51.1	50.4	56.4	62.2	69.1	69.4	63.7	52.9	46.7	38.3	54.0
1985	36.1	41.1	45.8	53.9	58.3	64.4	74.1	69.3	60.8	52.7	37.3	33.0	52.2
1986	42.5	43.7	51.3	50.2	57.6	66.3	65.3	72.3	61.5	57.0	47.7	40.6	54.7
1987	39.6	45.2	48.7	54.2	60.4	66.5	67.2	70.5	65.5	58.2	48.8	39.1	55.3
1988	39.0	44.7	47.2	52.2	56.4	62.4	68.4	68.0	64.0	58.3	47.5	42.0	54.2
1989	42.2	36.0	45.6	56.0	58.0	64.3	65.5	66.1	65.3	54.9	48.6	40.3	53.6
1990	43.4	41.9	49.4	54.5	56.7	63.6	71.2	70.9	67.0	53.9	48.4	34.7	54.6
1991	38.9	48.8	46.2	50.8	54.7	59.9	69.9	70.1	67.4	55.4	47.5	42.7	54.4
1992	44.5	48.1	52.3	55.4	63.1	67.4	70.2	69.8	62.3	55.9	46.3	39.3	56.2
1993	36.5	40.1	47.9	52.6	61.1	62.5	64.3	68.5	65.7	57.4	41.5	41.4	53.3
1994	44.5	40.9	50.2	54.2	60.7	62.9	71.1	70.2	67.6	54.1	42.7	42.3	55.1
1995	43.4	46.5	48.3	51.3	60.7	63.8	70.6	67.3	67.1	54.5	51.7	42.4	55.6
1996	40.7	41.6	47.7	53.5	55.3	63.2	72.0	70.4	61.8	54.0	45.5	41.6	53.9
1997	41.0	42.9	46.7	51.0	62.2	62.7	68.9	71.6	65.9	53.7	49.8	41.1	54.8
1998	43.0	46.1	48.8	52.8	56.3	63.4	71.0	71.0	66.9	54.3	48.9	40.5	55.3
1999	42.8	43.7	45.8	50.7	54.9	61.2	67.2	69.0	64.6	55.1	50.1	43.9	54.1
2000	39.8	43.7	45.6	54.0	57.6	65.3	67.8	67.8	63.9	55.2	42.8	40.4	53.7
2001	41.2	42.0	48.0	49.6	59.4	61.0	66.5	69.2	65.1	53.6	48.0	42.0	53.8
2002	41.2	44.4	44.9	52.3	55.7	64.7	69.8	69.3	64.7	54.1	47.6	43.4	54.3
2003	44.8	44.3	49.0	50.8	57.3	66.1	71.6	70.1	66.8	58.2	45.2	42.5	55.6
2004	38.5	45.3	51.2	56.3	60.1	65.5	71.5	71.5	62.8	56.3	45.9	43.3	55.7
2005	41.8	43.6	50.0	52.3	60.2	62.0	70.3	70.7	62.5	56.3	44.1	39.8	54.5
2006	45.5	42.0	46.1	53.1	59.8	66.3	71.0	69.2	65.1	54.0	47.4	40.0	55.0
2007	38.1	44.2	50.1	51.7	58.6	62.9	70.7	68.3	62.4	53.1	44.8	41.0	53.8
2008	38.8	44.9	45.4	48.5	58.9	61.9	68.8	69.6	65.2	53.6	49.2	37.5	53.5
2009	40.1	41.4	45.3	52.3	60.1	65.7	73.6	69.9	66.2	54.7	47.8	35.6	54.4
2010	45.1	46.6	48.2	51.0	55.0	60.5	67.5	68.2	64.5	55.1	45.0	42.6	54.1
2011	41.7	40.3	46.1	47.9	54.1	61.7	66.7	69.9	67.4	55.5	44.9	39.1	52.9
POR= 81 YRS	39.7	43.3	47.4	51.8	57.7	63.2	68.4	68.5	63.6	54.9	46.2	41.1	53.8

HEATING DEGREE DAYS (base 65°F) 2011 PORTLAND (KPDX)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1982-83	22	10	99	307	614	715	635	492	435	363	184	81	3957
1983-84	27	2	109	325	463	880	701	546	425	430	269	115	4292
1984-85	9	2	80	377	539	820	893	664	588	327	213	62	4574
1985-86	0	7	124	373	826	982	691	591	417	437	265	43	4756
1986-87	37	0	148	242	510	750	780	550	495	321	173	51	4057
1987-88	22	2	54	214	479	798	801	581	544	380	272	109	4256
1988-89	33	15	91	208	518	705	699	805	594	263	219	77	4227
1989-90	32	27	44	306	486	759	664	641	476	308	251	78	4072
1990-91	10	5	14	336	492	933	802	446	575	420	310	156	4499
1991-92	4	13	25	295	517	685	627	483	387	282	108	35	3461
1992-93	5	9	107	274	556	789	877	692	522	366	135	94	4426
1993-94	37	17	57	231	698	726	630	668	451	316	143	85	4059
1994-95	16	0	23	330	662	696	666	514	510	405	149	95	4066
1995-96	3	15	20	318	392	693	747	671	530	340	294	70	4093
1996-97	16	8	113	340	581	717	737	612	563	413	116	79	4295
1997-98	7	0	42	341	452	734	676	523	498	376	268	72	3989
1998-99	12	4	32	323	475	753	677	592	587	424	312	150	4341
1999-00	38	16	73	298	441	648	774	612	593	323	229	62	4107
2000-01	19	13	75	296	661	759	733	640	517	455	201	140	4509
2001-02	22	5	55	347	504	706	730	572	618	375	282	72	4288
2002-03	8	9	58	330	516	662	620	573	490	418	245	67	3996
2003-04	1	1	41	219	586	691	815	568	420	258	151	60	3811
2004-05	1	3	72	265	569	667	714	595	460	376	171	105	3998
2005-06	5	3	93	262	620	774	594	638	579	349	187	36	4140
2006-07	5	10	64	334	523	767	826	574	453	393	217	88	4254
2007-08	0	7	116	361	600	740	805	578	598	490	223	147	4665
2008-09	6	17	57	349	465	847	767	656	599	374	175	29	4341
2009-10	7	11	45	312	510	906	609	510	510	413	303	145	4281
2010-11	37	26	54	299	592	689	714	683	577	505	331	110	4617
2011-	13	2	36	286	596	797							

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COOLING DEGREE DAYS (base 65°F) 2011 PORTLAND (KPDX)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1982	0	0	0	0	4	107	103	127	50	0	0	0	391
1983	0	0	0	0	48	23	80	137	12	0	0	0	300
1984	0	0	0	0	10	34	140	144	47	6	0	0	381
1985	0	0	0	0	11	53	291	145	5	0	0	0	505
1986	0	0	0	0	40	87	52	235	50	0	0	0	464
1987	0	0	0	4	37	102	95	177	77	12	0	0	504
1988	0	0	0	0	10	39	147	115	67	8	0	0	386
1989	0	0	0	0	9	62	53	66	60	0	0	0	250
1990	0	0	0	2	3	45	206	193	83	0	0	0	532
1991	0	0	0	0	0	7	164	176	102	2	0	0	451
1992	0	0	0	1	57	114	174	164	31	0	0	0	541
1993	0	0	0	0	21	24	22	132	80	3	0	0	282
1994	0	0	0	0	15	31	210	168	109	0	0	0	533
1995	0	0	0	0	23	63	184	92	91	0	0	0	453
1996	0	0	0	0	1	36	240	181	25	7	0	0	490
1997	0	0	0	0	37	16	134	210	75	0	0	0	472
1998	0	0	0	14	4	30	206	197	96	0	0	0	547
1999	0	0	0	0	9	41	111	149	68	0	0	0	378
2000	0	0	0	0	3	78	113	107	50	0	0	0	351
2001	0	0	0	1	35	28	75	144	64	0	0	0	347
2002	0	0	0	0	1	69	165	149	57	0	0	0	441
2003	0	0	0	0	16	108	212	165	99	14	0	0	614
2004	0	0	0	6	8	82	210	211	15	3	0	0	535
2005	0	0	0	0	26	22	176	190	25	0	0	0	439
2006	0	0	0	1	31	82	199	148	74	0	1	0	536
2007	0	0	0	0	22	34	184	114	46	0	0	0	400
2008	0	0	0	0	40	58	134	169	73	0	0	0	474
2009	0	0	0	0	34	56	281	170	86	0	0	0	627
2010	0	0	0	0	0	18	120	131	45	0	0	0	314
2011	0	0	0	0	0	16	72	160	114	0	0	0	362

SNOWFALL (inches) 2011 PORTLAND (KPDX)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1976-77	0.0	0.0	0.0	0.0	0.0	0.0	T	0.0	T	0.0	T	0.0	T
1977-78	0.0	0.0	0.0	0.0	7.6	T	0.0	0.0	0.1	T	T	0.0	7.7
1978-79	0.0	0.0	0.0	0.0	3.0	2.4	1.9	1.1	T	T	0.0	0.0	8.4
1979-80	0.0	0.0	0.0	0.0	0.0	T	12.4	T	T	T	0.0	T	12.4
1980-81	0.0	0.0	0.0	0.0	T	T	0.0	T	T	T	T	T	T
1981-82	0.0	0.0	0.0	0.0	0.0	2.0	2.1	T	T	T	0.0	0.0	4.1
1982-83	0.0	0.0	0.0	T	T	0.0	0.0	0.0	T	T	T	0.0	T
1983-84	0.0	0.0	0.0	0.0	0.0	2.3	0.1	T	T	0.0	T	0.0	2.4
1984-85	0.0	0.0	0.0	T	0.0	2.8	T	4.8	T	T	0.0	0.0	7.6
1985-86	0.0	0.0	0.0	0.0	3.4	1.6	T	5.8	T	T	T	0.0	10.8
1986-87	0.0	0.0	0.0	0.0	T	0.1	0.0	T	T	T	T	0.0	0.1
1987-88	0.0	0.0	0.0	0.0	0.0	2.9	0.6	0.0	0.0	T	T	0.0	3.5
1988-89	0.0	0.0	0.0	0.0	T	T	0.9	0.3	2.0	T	0.0	0.0	3.2
1989-90	0.0	T	0.0	T	0.0	0.0	T	8.3	T	0.0	0.0	0.0	8.3
1990-91	0.0	0.0	0.0	0.0	0.0	1.3	0.6	0.0	T	T	0.0	0.0	1.9
1991-92	0.0	0.0	0.0	0.0	T	0.0	0.0	0.0	0.0	T	0.0	0.0	T
1992-93	0.0	0.0	0.0	0.0	T	4.6	2.9	6.6	0.0	T	T	0.0	14.1
1993-94	0.0	0.0	0.0	0.0	T	T	0.0	2.6	T	T	0.0	T	2.6
1994-95	0.0	0.0	0.0	0.0	0.3	1.1	T	3.6	0.4	T	0.0	T	5.4
1995-96	0.0	0.0	0.0	0.0	0.0								
1996-97													
1997-98													
1998-99													
1999-00													
2000-01													
2001-02													
2002-03													
2003-04													
2004-05													
2005-													
POR= 48 YRS	0.0	T	0.0	T	0.5	1.6	3.3	1.3	0.5	T	T	T	7.2

WBAN : 24229

REFERENCE NOTES :

<p>PAGE 1: THE TEMPERATURE GRAPH SHOWS NORMAL MAXIMUM AND NORMAL MINIMUM DAILY TEMPERATURES (SOLID CURVES) AND THE ACTUAL DAILY HIGH AND LOW TEMPERATURES (VERTICAL BARS).</p> <p>PAGE 2 AND 3: H/C INDICATES HEATING AND COOLING DEGREE DAYS. RH INDICATES RELATIVE HUMIDITY W/O INDICATES WEATHER AND OBSTRUCTIONS S INDICATES SUNSHINE. PR INDICATES PRESSURE. CLOUDINESS ON PAGE 3 IS THE SUM OF THE CEILOMETER AND SATELLITE DATA NOT TO EXCEED EIGHT EIGHTHS(OKTAS).</p> <p>GENERAL: T INDICATES TRACE PRECIPITATION, AN AMOUNT GREATER THAN ZERO BUT LESS THAN THE LOWEST REPORTABLE VALUE. + INDICATES THE VALUE ALSO OCCURS ON EARLIER DATES. BLANK ENTRIES DENOTE MISSING OR UNREPORTED DATA. NORMALS ARE 30-YEAR AVERAGES (1971 - 2000). ASOS INDICATES AUTOMATED SURFACE OBSERVING SYSTEM. PM INDICATES THE LAST DAY OF THE PREVIOUS MONTH. POR (PERIOD OF RECORD) BEGINS WITH THE JANUARY DATA MONTH AND IS THE NUMBER OF YEARS USED TO COMPUTE THE MEAN. INDIVIDUAL MONTHS WITHIN THE POR MAY BE MISSING. WHEN THE POR FOR A NORMAL IS LESS THAN 30 YEARS, THE NORMAL IS PROVISIONAL AND IS BASED ON THE NUMBER OF YEARS INDICATED. 0.* OR * INDICATES THE VALUE OR MEAN-DAYS-WITH IS BETWEEN 0.00 AND 0.05. CLOUDINESS FOR ASOS STATIONS DIFFERS FROM THE NON-ASOS OBSERVATION TAKEN BY A HUMAN OBSERVER. ASOS STATION CLOUDINESS IS BASED ON TIME-AVERAGED CEILOMETER DATA FOR CLOUDS AT OR BELOW 12,000 FEET AND ON SATELLITE DATA FOR CLOUDS ABOVE 12,000 FEET. THE NUMBER OF DAYS WITH CLEAR, PARTLY CLOUDY, AND CLOUDY CONDITIONS FOR ASOS STATIONS IS THE SUM OF THE CEILOMETER AND SATELLITE DATA FOR THE SUNRISE TO SUNSET PERIOD. CLEAR INDICATES 0 - 2 OKTAS, PARTLY CLOUDY INDICATES 3 - 6 OKTAS, AND CLOUDY INDICATES 7 OR 8 OKTAS. WHEN AT LEAST ONE OF THE ELEMENTS (CEILOMETER OR SATELLITE) IS MISSING, THE DAILY CLOUDINESS IS NOT COMPUTED.</p>	<p>GENERAL CONTINUED: WIND DIRECTION IS RECORDED IN TENS OF DEGREES (2 DIGITS) CLOCKWISE FROM TRUE NORTH. "00" INDICATES CALM. "36" INDICATES TRUE NORTH. RESULTANT WIND IS THE VECTOR AVERAGE OF THE SPEED AND DIRECTION. AVERAGE TEMPERATURE IS THE SUM OF THE MEAN DAILY MAXIMUM AND MINIMUM TEMPERATURE DIVIDED BY 2. SNOWFALL DATA COMPRISE ALL FORMS OF FROZEN PRECIPITATION, INCLUDING HAIL. A HEATING (COOLING) DEGREE DAY IS THE DIFFERENCE BETWEEN THE AVERAGE DAILY TEMPERATURE AND 65 F. DRY BULB IS THE TEMPERATURE OF THE AMBIENT AIR. DEW POINT IS THE TEMPERATURE TO WHICH THE AIR MUST BE COOLED TO ACHIEVE 100 PERCENT RELATIVE HUMIDITY. WET BULB IS THE TEMPERATURE THE AIR WOULD HAVE IF THE MOISTURE CONTENT WAS INCREASED TO 100 PERCENT RELATIVE HUMIDITY. ON JULY 1, 1996, THE NATIONAL WEATHER SERVICE BEGAN USING THE "METAR" OBSERVATION CODE THAT WAS ALREADY EMPLOYED BY MOST OTHER NATIONS OF THE WORLD. THE MOST NOTICEABLE DIFFERENCE IN THIS ANNUAL PUBLICATION WILL BE THE CHANGE IN UNITS FROM TENTHS TO EIGHTS(OKTAS) FOR REPORTING THE AMOUNT OF SKY COVER. STATION HISTORY STOPPED WITH THE 2009 ANNUAL. IF YOU NEED HISTORY GO TO "MULTI-NETWORK MEDADATA SYSTEM", URL IS: https://mi3.ncdc.noaa.gov/mi3qry/login.cfm SNOWFALL STOPPED MONTH & YEAR INDICATED ABOVE. NO FURTHER YEARS INCLUDED UNLESS RESTARTED.</p> <p>NOTE: The "Period of Record:(POR) for all "averages" is based on the "Summary of the Day First Order Station" and "Cooperative Summary of the Day" archives.</p>
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2011 PORTLAND OREGON (KPDX)

The Portland Weather Service Office is located 6 miles north-northeast of downtown Portland. Portland is situated about 65 miles inland from the Pacific Coast and midway between the northerly oriented low coast range on the west and the higher Cascade range on the east, each about 30 miles distant. The airport lies on the south bank of the Columbia River. The coast range provides limited shielding from the Pacific Ocean. The Cascade range provides a steep slope for orographic lift of moisture-laden westerly winds and consequent moderate rainfall, and also forms a barrier from continental air masses originating over the interior Columbia Basin. Airflow is usually northwesterly in Portland in spring and summer and southeasterly in fall and winter. The Portland Airport location is drier than most surrounding localities.

Portland has a very definite winter rainfall climate. Approximately 88 percent of the annual total occurs in the months of October through May, 9 percent in June and September, while only 3 percent comes in July and August. Precipitation is mostly rain, as on the average there are only five days each year with measurable snow. Snowfalls are seldom more than a couple of inches, and generally last only a few days.

The winter season is marked by relatively mild temperatures, cloudy skies and rain with southeasterly surface winds predominating. Summer produces pleasantly mild temperatures, northwesterly winds and very little precipitation. Fall and spring are transitional in nature. Fall and early winter are times with most frequent fog.

At all times, incursions of marine air are a frequent moderating influence. Outbreaks of continental high pressure from east of the Cascade Mountains produce strong easterly flow through the Columbia Gorge into the Portland area. In winter this brings the coldest weather with the extremes of low temperature registered in the cold air mass. Freezing rain and ice glaze are sometimes transitional effects. Temperatures below zero are very infrequent. In summer, hot, dry continental air brings the highest temperatures. Temperatures above 100 degrees are infrequent, but 90 degrees or higher are reached every year, but seldom persist for more than two or three days.

Destructive storms are infrequent in the Portland area. Surface winds seldom exceed gale force and rarely in the period of record have winds reached higher than 75 mph. Thunderstorms occur about once a month through the spring and summer months. Heavy downpours are infrequent but gentle rains occur almost daily during winter months.

Most rural areas around Portland are farmed for berries, green beans, and vegetables for fresh market and processing. The long growing season with mild temperatures and ample moisture favors local nursery and seed industries.

Based on the 1951-1980 period, the average first occurrence of 32 degrees Fahrenheit in the fall is November 7 and the average last occurrence in the spring is April 3.

Station History

PORTLAND, OR

NAME	Begin Date	End Date	Latitude	Longitude	Elevation Feet	Relocation	Platform
PORTLAND	1928-09-01	1929-09-30	45° 34'	-122° 43'			AIRWAYS
PORTLAND	1930-01-01	1940-12-31	45° 34'	-122° 43'			AIRWAYS
PORTLAND INTL AP	1947-12-31	1948-01-01	45° 36'	-122° 36'	39		AIRWAYS, COOP
PORTLAND INTL AP	1981-12-31	1995-11-01	45° 36'	-122° 36'	21		COOP
PORTLAND INTL AP	1997-06-03	2011-04-15	45° 35'	-122° 36'	19	.5 MI NW	ASOS, COOP
PORTLAND INTL AP	1941-01-01	1947-12-31	45° 36'	-122° 36'			AIRWAYS, COOP
PORTLAND WB AP	1948-01-01	1948-08-24	45° 36'	-122° 36'	39		AIRWAYS, COOP
PORTLAND INTL AP	1949-02-04	1969-01-01	45° 36'	-122° 36'	21		AIRWAYS, COOP
PORTLAND INTL AP	1969-01-01	1981-12-31	45° 36'	-122° 36'	21		COOP, WXSVC
PORTLAND INTL AP	1995-11-01	1997-06-03	45° 35'	-122° 36'	24	.6 MI SE	ASOS, COOP
PORTLAND INTL AP	2011-04-15	Present	45° 35'	-122° 36'	19		ASOS, COOP
PORTLAND AP	1949-01-01	1949-02-04	45° 36'	-122° 36'	21		AIRWAYS, COOP
PORTLAND INTL AP	1938-04-01	1941-01-01	45° 36'	-122° 36'			COOP
PORTLAND AP	1948-08-24	1949-01-01	45° 36'	-122° 36'	39		AIRWAYS, COOP

Element History

Element	Begin Date	End Date	Frequency	Time Of Observation	Equipment *	Equipment * Modifications	Equipment Exposure
PRECIP	1995-07-01	1995-11-01	DAILY	2400	UNIV	RCRD	
PRECIP	1995-07-01	1995-11-01	HOURLY	2400	UNIV	RCRD	
PRECIP	1995-11-01	Present	DAILY	2400	TB	RCRD	
PRECIP	1995-11-01	Present	HOURLY	2400	TB	RCRD	
PRECIP	1928-09-01	1982-01-01	DAILY	2400	UNIV	RCRD	
PRECIP	1982-01-01	1995-07-01	DAILY	2400	UNIV	RCRD	
TEMP	1928-09-01	1982-01-01	DAILY	2400			
TEMP	1982-01-01	1995-07-01	DAILY	2400			
TEMP	1995-07-01	1995-11-01	DAILY	2400			
PRECIP	1982-01-01	1995-07-01	HOURLY	2400			
TEMP	1995-11-01	Present	DAILY	2400	HYGR		

* For explanation of codes and abbreviations see Station Metadata link below.

Other Station Information can be found at:

ASOS Implementation by NWS: <http://www.nws.noaa.gov/ops2/Surface/asosimplementation.htm>

Station Metadata website: <http://www.ncdc.noaa.gov/homr>

INQUIRES/COMMENTS CALL: (828) 271-4800, option 2

Fax Number : (828) 271-4876

TDD : (828) 271-4010

Email : ncdc.info@noaa.gov

NOAA/National Climatic Data Center

Attn: User Engagement & Services Branch

151 Patton Avenue

Asheville, NC 28801-5001

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